

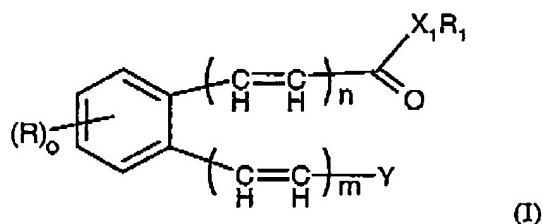
AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions including the claims in the application.

**Listing of the Claims:**

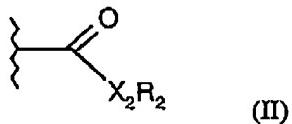
**CLAIMS:**

1. (Original) A compound of formula (I)

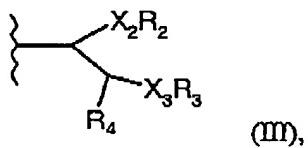


in which:

Y is a group of formula (II)



or of formula (III)



R is

H, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl or C<sub>5</sub>-C<sub>14</sub>-aryl, halogen, -CN, -OH, -O-C<sub>1</sub>-C<sub>6</sub>-alkyl, -O-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -O-C<sub>5</sub>-C<sub>14</sub>-aryl, -O-C<sub>2</sub>-C<sub>6</sub>-alkynyl, -NH<sub>2</sub>, -NH-C<sub>2</sub>-C<sub>6</sub>-alkyl, -NH-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -NH-C<sub>2</sub>-C<sub>6</sub>-alkynyl, -NH-C<sub>5</sub>-C<sub>14</sub>-aryl, -N(-C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -N(-C<sub>2</sub>-C<sub>6</sub>-alkenyl)<sub>2</sub>, -N(-C<sub>2</sub>-C<sub>6</sub>-alkynyl)<sub>2</sub>, -N(C<sub>5</sub>-C<sub>14</sub>-aryl)<sub>2</sub>, -NH[-C(=O)-(C<sub>1</sub>-C<sub>6</sub>-alkyl)], -NH[-C(=O)-(C<sub>5</sub>-C<sub>14</sub>-aryl)], -NH-O-R<sub>1</sub>, -SH, -S-C<sub>1</sub>-C<sub>6</sub>-alkyl, -S-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -S-C<sub>1</sub>-C<sub>6</sub>-alkynyl or -O-C<sub>5</sub>-C<sub>14</sub>-aryl, wherein the abovementioned substituents are unsubstituted or substituted, one or more times, by a substituent independently selected from C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl, C<sub>5</sub>-C<sub>14</sub>-aryl, where alkyl, alkenyl, alkynyl

and aryl may be independently unsubstituted or substituted, once or twice, by a substituent independently selected from -OH, =O, -O-C<sub>1</sub>-C<sub>6</sub>-alkyl, -O-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -O-C<sub>5</sub>-C<sub>14</sub>-aryl, -C<sub>5</sub>-C<sub>14</sub>-aryl, -NH-C<sub>1</sub>-C<sub>6</sub>-alkyl, -NH-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -NH<sub>2</sub>, and halogen, wherein alkyl, alkenyl, alkynyl and aryl can be further substituted by a -CN, amide or oxime,

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are, independently of each other,  
H, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl or C<sub>5</sub>-C<sub>14</sub>-aryl,  
in which alkyl, alkenyl, alkynyl and aryl are unsubstituted or substituted, once or twice, by a substituent independently selected from -OH, -O-C<sub>1</sub>-C<sub>6</sub>-alkyl, -O-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -O-C<sub>5</sub>-C<sub>14</sub>-aryl, -C<sub>5</sub>-C<sub>14</sub>-aryl, -NH-C<sub>1</sub>-C<sub>6</sub>-alkyl, -NH-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -NH<sub>2</sub> and halogen, in which alkyl, alkenyl, alkynyl and aryl are independently unsubstituted or substituted, once or twice, by a substituent independently selected from -OH, =O, -O-C<sub>1</sub>-C<sub>6</sub>-alkyl, -O-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -O-C<sub>5</sub>-C<sub>14</sub>-aryl, -C<sub>5</sub>-C<sub>14</sub>-aryl, -NH-C<sub>1</sub>-C<sub>6</sub>-alkyl, -NH-C<sub>2</sub>-C<sub>6</sub>-alkenyl, -NH<sub>2</sub> and halogen, in which said alkyl, alkenyl, alkynyl and aryl can be further independently substituted by a -CN, amide or oxime,

X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> are, independently of each other, selected from  
-CH<sub>2</sub>-, -CHR-, -NH-, -N(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, -N(C<sub>2</sub>-C<sub>6</sub>-alkenyl)-, -N(C<sub>2</sub>-C<sub>6</sub>-alkynyl)-,  
-N[-C(=O)-(C<sub>1</sub>-C<sub>6</sub>-alkyl)]-, -N[-C(=O)-(C<sub>5</sub>-C<sub>14</sub>-aryl)]-, -N(C<sub>5</sub>-C<sub>14</sub>-aryl)-, -N(O-R)-,  
-O- and -S-,

n and m are, independently of each other,  
2, 3, 4 or 5, and

o is  
0, 1, 2 or 3,

excluding, however, compounds of formula (I) in which

o is 0,

n is 2,

m is 2 or 3,

X<sub>2</sub> and X<sub>3</sub> are O, and

R<sub>2</sub> and R<sub>3</sub> are C<sub>2</sub>H<sub>5</sub>,

and all double bonds possess the trans-configuration,

and/or stereoisomeric forms of compounds of formula (I) and/or a mixture of these forms in any ratio, and/or physiologically tolerated salts of compounds of formula (I).

2. (Original) A compound of formula (I) as claimed in claim 1, wherein at least one polyene group contains at least one *cis* double bond.

3. (Original) A compound of formula (I) as claimed in claim 1, wherein

R is H,

R<sub>1</sub> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl,

R<sub>2</sub> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl,

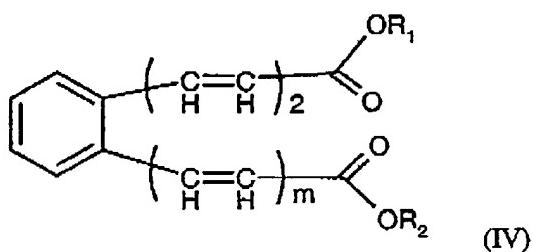
R<sub>3</sub> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl,

R<sub>4</sub> is C<sub>1</sub>-C<sub>6</sub>-alkyl, and

X<sub>1</sub> and X<sub>2</sub> are -O-,

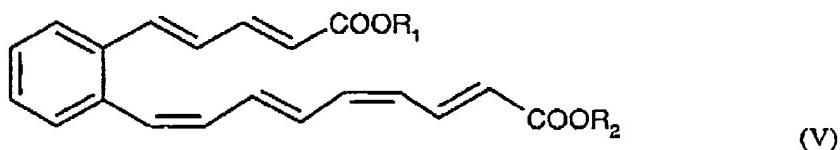
and the physiologically tolerated salts thereof.

4. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (IV)



wherein m is 3 or 4, and R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1 and the physiologically tolerated salts thereof.

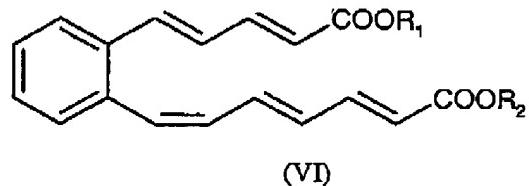
5. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (V)



wherein R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1.

6. (Original) A compound of formula (V) as claimed in claim 5, wherein each of R<sub>1</sub> and R<sub>2</sub> is H.

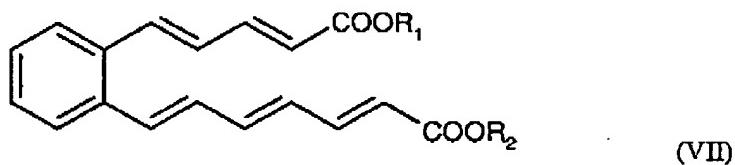
7. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VI)



wherein R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1.

8. (Original) A compound of formula (VI) as claimed in claim 7, wherein R<sub>1</sub> and R<sub>2</sub> are each H.

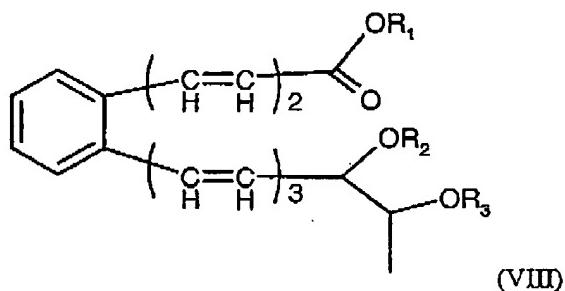
9. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VII)



wherein R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1.

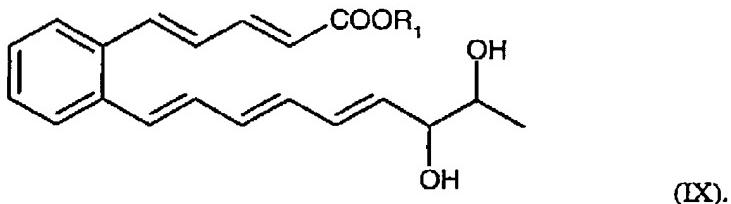
10. (Original) A compound of formula (VII) as claimed in claim 9, wherein R<sub>1</sub> and R<sub>2</sub> are each H.

11. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VIII)



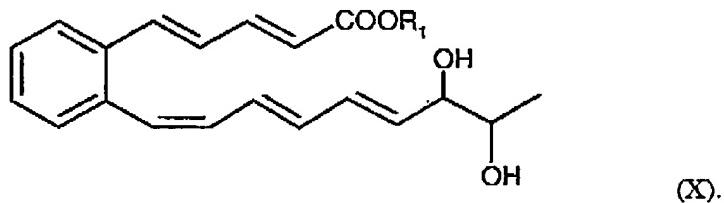
wherein R<sub>1</sub> and R<sub>2</sub> are as defined in claim 1.

12. (Original) A compound of formula (VIII) as claimed in claim 11, which is a compound of formula (IX)



13. (Original) A compound of formula (IX) as claimed in claim 12, wherein R<sub>1</sub> is H.

14. (Original) A compound of the formula (VIII) as claimed in claim 11, which is a compound of formula (X)



15. (Original) A compound of formula (X) as claimed in claim 14, wherein R<sub>1</sub> is H.

16. (Currently Amended) A process for preparing a compound of formula (I) as claimed in claim 1, which comprises

1. culturing the microorganism *Actinomycetales* sp. DSM 14865, or one of its variants and/or mutants, in an aqueous nutrient medium until one or more of the compounds serpentemycin A, B, C and D accrues in the culture broth, and
2. isolating and purifying said serpentemycin A, B, C and/or D,
3. ~~where appropriate, using a suitable reagent to convert said serpentemycin A, B, C or D into another compound of formula (I),~~
4. ~~and, where appropriate, converting said compound of formula (I) into a pharmacologically tolerated salt.~~

17. (Cancelled) The process as claimed in claim 16, wherein the suitable reagent is an alkylating agent.

18. (Currently Amended) A process as claimed in claim 16, which comprises fermenting the microorganism *Actinomycetales* sp. DSM 14865, or one of its variants and/or mutants, in a culture medium which contains a carbon and nitrogen source and also the customary inorganic salts and trace elements, isolating serpentine mycins A, B, C and/or D and, optionally where appropriate, converting said serpentine mycins A, B, C and/or D into a pharmacologically tolerated salt.

19. (Original) A process as claimed in claim 16, wherein the fermentation is carried out under aerobic conditions at a temperature of between 20 and 35°C and at a pH between 4 and 10.

20. (Currently Amended) A method for the treatment and/or prophylaxis of an infectious bacterial disease comprising administering to a patient in need thereof an antibacterially effective amount of a compound of claim 1.

21. (Currently Amended) A pharmaceutical composition for the treatment and/or prophylaxis of infectious bacterial diseases comprising at least one compound as claimed in claim 1 and one or more physiologically suitable auxiliary substances.

22. (Currently Amended) A process for producing a pharmaceutical composition as claimed in claim 21, which comprises combining at least one compound as claimed in claim 1, with one or more physiologically suitable auxiliary substances, into a suitable form for administration.

23. (Currently Amended) The isolated microorganism *Actinomycetales* sp., DSM 14865.